



Sun Powers Navajo Homes Through New Program

By MICHELLE RUSHLO Associated Press Writer

DILKON, Ariz. (AP) _ On the breezy grass plains where generations of Joanne Jackson's family have been born and raised, a wood bungalow with faded tan paint is alive with electricity. The house was built years ago in this western part of the Navajo Nation using her husband's veterans benefits. And though it had white plastic outlet plates on the walls and lights in the ceiling, they were merely decorative until September.

That's when Jackson and her husband, Raymond, became the first people to get power through a solar generator program that its founders hope will eventually spread power throughout American Indian reservations. Of the 37,000 occupied structures on the Navajo Reservation, only 9 percent have electricity and 14 percent have utility gas, according to 1990 Census Bureau statistics. Most other Navajos cook and heat with wood, coal or fuel oil.

Large spreads of open land frequently separate the homes on the reservation, which at 4.8 million acres covers an area slightly smaller than New Jersey. The rambling expanses make hooking into the power grid eye-poppingly expensive. Stringing power lines costs roughly \$30,000 per mile, according to Arizona Public Service - an impossible sum for most families in this region where the unemployment rate hovers around 50 percent.

By comparison, one-kilowatt solar generators, which can provide for basic needs, cost roughly \$10,000. The solar systems are ideal for Indian reservations because they are less expensive than power lines and don't tear up the landscape, said Gregory Kiss, president of Native American Photovoltaics, the non-profit corporation that helped install the Jacksons' system. NAPV, launched in June with a \$220,000 federal grant, started a lease-to-own program in the southwestern portion of the reservation offering families one-kilowatt systems. The solar generators provide enough power to fuel a refrigerator, lights, television, water pump and computer for an average family.

The program, still in its infancy, should have 20 systems installed in the next six months, said Kiss, a New York architect who specializes in integrating solar systems into buildings. Thousands of solar generators have been installed on the reservation over the years, Kiss said, but many aren't functioning today because they were never maintained. The maintenance required for the systems is minor. The solar-charged batteries, which are similar to golf cart batteries, just need water added and occasional checks, Kiss said. But without that maintenance, the systems die.

To combat that and provide some badly needed jobs on the reservation, NAPV will train Navajo workers to check and maintain the systems periodically. "We're trying to make the program behave like a distributed service," he said.

So far, the Jacksons, who received their generator as a demonstration system, are thrilled. Mrs. Jackson, 62, has a refrigerator for the first time, sparing her trip after trip down the dusty rutted road from her home to the market. She keeps a few tomatoes and soda cans in the small refrigerator, smiling often as she shows it off to visitors. "I like the whole system," Mrs. Jackson, who speaks primarily Navajo, said through a translator. "I have been really wanting a refrigerator." Anna M. Frazier, a local official in Dilkon, said 60 percent of the people in her community live without any power. They use lanterns for light, wood stoves and propane for heat and cooking.

"That's just how we've always lived," Frazier said. "To have electricity, we had to adjust our lifestyle." Yet, she and others say electricity does provide convenience and safety for Navajo families. At minimum, it means Navajo children can do their homework at night and maybe access a computer, Frazier said. For Mrs. Jackson, it means her 82-year-old husband can safely descend the rough wood steps at the front of the house by porch light at night. It's a minor convenience in an urban area but an enormous help here where the nearest street light is 30 miles away.

"The porch light is on," Mrs. Jackson said. "That's one thing I like."